DOCUMENT RESUME

ED 214 963 TM 820 117

AUTHOR Athanasou, James A.; Lucas, Charles
TITLE Kuder Interest Card Sort: Research Report.
INSTITUTION New South Wales Dept. of Industrial Relations and Technology, Darlinghurst (Australia). Div. of Vocational Guidance Services.
PUB DATE Sep 79
NOTE 15p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Counseling; *Classification; Foreign Countries; Higher Education; Interest Inventories; *Measures (Individuals); Secondary Education; *Vocational Interests
IDENTIFIERS Card Sort; *Kuder Interest Card Sort; Wales (South)

ABSTRACT

The Kuder Interest Card Sort (KICS) is presented as an interest exploration process prepared to assist psychologists, vocational counselors or career advisors in assessment of vocational preferences when a detailed interest-inventory is unnecessary. The card sort concept and rationale, physical and content format, administering procedure, and uses in counseling are given. Within 10 occupational categories, information is gathered within a hierarchy to: (1) identify the client's concerns; (2) structure career decision parameters; (3) stimulate thinking about interests: and (4) serve as a groundwork for counseling. An initial evaluation of the card sort procedure is given in comparison with the Kuder Perference Record. It is suggested that further use in counseling will contribute to development, evaluation and delineation of KICS limitations. A guide for the administering of the KICS technique provides instructions and basic methods for analyzing the results. (CM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Research Report

ED214963

KUDER INTEREST CARD SORT

James A. Athanasou
Charles Lucas

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- [x] This document has been reproduced as received from the person or organization originating it.
- [ ] Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Athanasou, J.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TM820117

Division of Vocational Guidance Services

R E S E A R C H R E P O R T

KUDER INTEREST CARD SORT

James A. Athanasou &
Charles Lucas

Research Section, Division of Vocational Guidance Services, N.S.W. Department of Industrial Relations & Technology. September, 1979.

PREFACE

The Kuder Interest Card Sort is now used in various suburban and country branches of the Division of Vocational Guidance Services as well as interstate offices of the Vocational Psychology Section (Department of Employment and Youth Affairs). To date, no evaluative data on the KICS have been available. The purpose of the present paper is simply to revise the initial report and provide some data relevant to concurrent validity.

THE KUDER INTEREST CARD SORT - AN INTEREST SURVEY PROCEDURE*

James A. Athanasou

Division of Vocational Guidance Services
Department of Industrial Relations & Technology
New South Wales, Australia.

* British Journal of Guidance & Counselling, in press 7/80
Not to be quoted without permission of the author.

A simple interest card sort has been prepared for the assistance of psychologists, vocational counsellors or careers advisers who wish to clarify interests without the need for a detailed, time-consuming interest inventory. Based on the Kuder Interest Classification, it is designed for use with mature and above-average-ability clients, as a process of self-clarification and orientation to vocational exploration.

Rationale

The Kuder Interest Card Sort (KICS) is an interest exploration process which provides an initial or partial assessment of vocational preferences. It is based on Kuder's (1960) classification of occupational interests into ten categories (Outdoor, Mechanical, Computational, Scientific, Persuasive, Artistic, Literary, Musical, Social Service, Clerical).

The idea of an interest-card-sort technique was derived from the vocational card sorts of Bolger (1973), Dewey (1974) and Dolliver (1967). Although such techniques have been used as a means of classifying occupations or activities - as with, for example, the Pictorial Interest Guide (Crowley, 1974) - no attempt has so far been made directly to sort interest categories.

The interest card sort would seem likely to be particularly appropriate for older, mature and above-average-ability clients. It allows these clients to state their initial interests without the exclusive need for a remote, detailed and often time-consuming inventory. There is evidence (O'Hara and Tiedeman, 1959) that bright and/or more mature clients are able reliably to specify their vocational interests. For example, Wrenn (1935) using the Strong Vocational Interest Blank - reported that subjects of high intelligence showed a high degree of correspondence between expressed and inventoried interests.

The importance which may be attached to expressions of specific interest clearly varies with the maturity of the individual, but after 16 or 17 years of age, interests (especially inventoried interests) show considerable stability (e.g. Strong, 1943, p.657; Schmidt and Rothney, 1953). Hopson (1968) commented that 'after 18, with students certainly, there would appear to be little advantage in using an inventory as opposed to asking after their interests', though he considered that counsellors would still probably benefit from using inventories with less educated clients over the age of 18.'

Materials

There are ten cards containing the titles of interest categories on the front, and a description of the interest area on the back of the card. Descriptions of the Kuder Interest categories used in the card sort were derived from the Kuder Preference Record. In addition, there are three cards marked 'LIKE, 'DISLIKE'and 'UNDECIDED', which are used in the sorting process.

Procedure

A brief orientation (e.g. Campbell, 1977, p.87) is in order though it will vary according to the demands and constraints of the interview. The procedure (e.g. Dolliver 1967, p.917) is described to clients as one way of helping them to talk about and organise their thinking about occupations. Actual instructions involved in the administration involve (a) sorting the cards into 3 groups ('LIKE, 'DISLIKE', 'UNDECIDED'), (b) considering and discussing the reasons for individual rejection (i.e. 'DISLIKE'), (c) determining specific reasons for acceptance (i.e. 'LIKE') and establishing a hierarchy, (d) considering some occupational reinforcers through a work values checklist, such as that derived from Super (1969) and (e) recording client comments and reactions. The groupings may also be analysed for consistency within Holland's (1966) hexagonal typology.

The sorting customarily forms part of the guidance interview, and may take anywhere from 5 to 45 minutes depending on how verbally fluent the client is.

Uses

Goldman (1961) differentiated the uses of tests in counselling according to their informational and non-informational purposes, and the functions of KICS can be differentiated in the same way. In informational terms the card sort can help (a) to identify the focus of the individual's concern, and (b) structure the parameters within which career decisions are to be made and help with identification of possible courses of action. In non-informational terms, it can (c) stimulate thinking and (d) serve as part of the groundwork for later counselling, Tyler (1961, p.196) commenting on her experiences with a card sort, stated that: 'What one gets out of the situation is a highly complex delineation of some aspects of the subject's personality that are not revealed by the psychological testing methods we ordinarily use.

Generally KICS should only be used within the larger context of careers guidance. As a vocational exploration technique it is intended to be used in conjunction with (a) classifications of careers in interest categories, and (b) occupational handbooks; and/or as a prelude to a more extensive investigation of interests, values and abilities. As a structured interview procedure, the interest card sort is designed to proceed more directly than an inventory or interview 'to the identification of important vocational counselling topics for discussion' (Dolliver, 1967,p. 920).

Evaluation

An initial evaluation of the KICS was conducted in an inner-city high school in New South Wales with 13 male and 15 female students (average age 17 years), who were participating in a career exploration programme focussing on vocational interest. The KICS and the Kuder Preference Record (KPR) were administered to two groups in different order of presentation. Subjects were first asked to study the 10 cards and sort them into three categories. Degree of interest was rated on a 3-point scale ('Like' = 2, 'Undecided' = 1, 'Dislike' = 0).

Self-estimates of interests using the KICS were compared to the pattern of KPR scores in a multivariate multiple regression analysis. Unlike univariate correlation approaches, this analysis simultaneously considers both the variation between all individuals (i.e. product-moment correlation) as well as the variation between all categories (i.e. rank correlation). The advantages of a similar multi-variate approach were outlined in Athanasou and Evans (1978). A single comprehensive multivariate analysis replicates the difficult counselling function of considering all 10 preferences at the one time. A chi-square test applied to the determinant test-ratio statistic, Lambda (Wilks, 1932), showed that self-ratings on the KICS were significantly related to the pattern of KPR scores ($\Lambda = 0.00005$ $\chi^2 = 162.7$, df = 100 $p < .01$). These multivariate tests are quite powerful, especially with samples of this size (see Cooley and Lohnes, 1971, p.228). The findings lend support for the concurrent validity of the interest card sort and for its use in place of inventoried interests.

Scores on all 10 interest categories of the inventory were also compared across the three self-ratings of 'Like', 'Dislike' and 'Undecided' (Table I).

Table I: Average KPR percentile scores for KICS categories

Group Choices	Mean KPR Percentile Score
Like (n=100)	66.3%
Undecided (n=60)	47.6%
Dislike (n=120)	38.1%

Mean KPR scores were significantly different ($F(2,279)=60.6$ $p<.01$) for the three categories, and overall, the results suggest the validity of individual self-ratings as measures of interest level.

Finally, based on its readability level, the KICS seems to be most suitable for senior high school, college or university students. Readability of the interest descriptions was assessed using the procedure described by Fry (1968) and was found to be clearly at a tertiary level of difficulty.

Conclusion

The interest card sort is presented as a procedure designed for use by counsellors to enable older and above-average-ability clients to clarify their vocational interests without the need for a detailed interest inventory. The card sort requires clients not only to make choices among fixed alternatives, but also to organise their preferences into patterns and to outline the reasoning behind their selection. As part of a process in which the counsellor directs the attention of the client towards various careers, such self-clarification is a necessary though not sufficient condition for optimum career choice. Results from an initial field study suggest that, taken as a whole, the pattern of self-ratings accounts for measured interests. Nevertheless, further use in counselling will contribute most to the development and evaluation of this approach, and at the same time serve to clarify and delineate its limitations as a counselling tool.

References

Athanasou, J.A. and Evans, J.C.: 'A Multivariate Comparison of Measured Vocational Interests with Self-Estimates'. Paper presented at 13th Annual Conference of Australian Psychological Society, University of Newcastle, 1978.

Bolger, A.W.: 'KOISK - a New Vocational Counselling Instrument'. British Journal of Guidance and Counselling, Volume I, 1973, pp.91-95.

Campbell, D.P.: Manual for the Strong-Campbell Interest Inventory (2nd edition) Stanford: Stanford University Press, 1977.

Cooley, W.W., and Lohnes, P.R.: Multivariate Data Analysis. New York: Wiley, 1971.

Crowley, T.: Pictorial Interest Guide. Cambridge: Careers Research and Advisory Centre, 1974.

Dewey, C.R.: 'Exploring Interests: a Non-Sexist Method'. Personnel and Guidance Journal, Volume 52, 1974, pp.311-315.

Dolliver, R.H.: 'An Adaptation of the Tyler Vocational Card Sort'. Personnel and Guidance Journal, Volume 45, 1967, pp.916-920.

Fry, E.: 'A Readability Formula that Saves Time'. Journal of Reading, Volume II, 1968, pp.514-516.

Goldman, L.: Using Tests in Counselling. New York: Appleton-Century-Crofts, 1961.

Holland, J.L.: The Psychology of Vocational Choice. Waltham, Mass.: Blaisdell-Ginn, 1966.

Hopson, B.: 'Key Concepts in the Use of Psychological Tests in Vocational Guidance'. In Hopson, B., and Hayes, J. (eds): The Theory and Practice of Vocational Guidance. London: Pergamon, 1968.

Kuder, G.F.: Kuder Preference Record: Administrator's Manual Chicago: Science Research Associates, 1960.

O'Hara, R.P.,and Tiedeman, D.V.: Vocational self-concept in adolescence. Journal of Counseling Psychology, Volume 6, 1959, pp. 292-301

Schmidt, J.L., and Rothney, J.W.M.: Variability of Vocational Choices of High School Students'. Personnel and Guidance Journal, Volume 34, 1953, pp.142-146.

Strong, E.K.: Vocational Interests of Men and Women. Stanford, California: Stanford University Press, 1943.

Super, D.E.: The Work Values Inventory. Boston: Houghton Mifflin, 1969.

Tyler, L.E. 'Research Explorations in the Realm of Choice'. Journal of Counseling Psychology, Volume 8, 1961, pp. 195-202.

Wilks, S.S.: 'Certain Generalisations in the Analysis of Variance'. Biometrika, Volume 24, 1932, pp. 471-494.

Wrenn, C.G.: 'Intelligence and the Vocational Choices of College Students'. Educational Records, Volume 16, 1935, pp.217-219.

Permission to use the descriptions of the Kuder interest categories was granted by Science Research Associates, Australia.

Correspondence should be addressed to James A. Athanasou, Central Planning and Research Unit, Division of Vocational Guidance Services, 1 Francis Street, East Sydney, Australia 2010.
Copies of the card-sort and an accompanying guide are available from the author upon request.

PART II

GUIDE FOR ADMINISTRATION OF THE KUDER INTEREST CARD SORT (RESEARCH EDITION)

Charles Lucas & J.A. Athanasou
Vocational Guidance Services,
N.S.W. Department of Industrial Relations & Technology.

GUIDE FOR ADMINISTRATION OF KUDER INTEREST CARD SORT

Structured use of KICS

Generally KICS should only be given within the larger context of career guidance. A brief orientation is in order and this will vary according to the demands and constraints of the interview. The procedure is described to clients as one way of helping them talk about and organise their thinking about occupations.

Orientation:

The following points can be mentioned to the client:-

> First, planning your career should not be done haphazardly. You should take some initiative in planning your career, and in particular you should realise that choosing a career is a lifelong activity, not just a single decision but a series of decisions.
>
> Second, one of the most useful ways of thinking about careers involves getting to know your interests. This procedure will provide you with some helpful information, but you should not follow it blindly. Later, we shall consider information about your abilities, achievements and values. (see Campbell 1977, p.87).

At a minimum, anyone completing KICS should be told that it is intended to help people come to some decisions about occupations by identifying the pattern of their likes and dislikes.

It is important that the clients understand the nature of the process and that their performance will not be scored in any way.

Introductory remarks: "On these cards are listed some descriptions of interests which give you ideas concerning your likes and dislikes for different types of work. Read the short description of each interest category and decide whether these statements apply to you. The occupations named in each category are only examples to guide you. There are many others. You may also find that many school subjects or leisure time activities also fit into your high interest areas."

The following set of instructions were adopted from Dolliver (1967) and Dewey (1974).

Instructions:

Step 1. The cards are placed in front of the client who is asked to sort the cards into 3 groups (LIKE, DISLIKE, or UNDECIDED) according to whether the client may or may not find some appeal in the specific area.

DISLIKE - "interests that you dislike, that do not seem appropriate for you"

UNDECIDED - "interests about which you are uncertain, indifferent or in question"

LIKE - "interests that you like, that have some specific appeal to you, that seem appropriate for you".

At each step the client should feel free to change the cards from one group to another.

Step 2. All the materials are removed except DISLIKE pile. Once the interest categories have been sorted, the client is asked to look specifically at the "DISLIKE" pile. The cards that have been placed in this group are spread out and the client is asked..."What were your reasons for grouping these together?"

Clients' comments can be recorded with some editing, and some counsellors may wish to relate these negative comments into positive statements of work values or vocational interests.

This process continues with the "LIKE" group considered next. Depending on the adequacy of the data the counsellor may/may not consider the "UNDECIDED" group.

Pattern of Card Layout

The emerging pattern of the card layout can provide material for further exploration and guidance.

(a) Most of the cards in "UNDECIDED" category

- discussion and action involving greater self-exploration; decision-making skills; assertion.

(b) Most of the cards in the "DISLIKE" category

- discussion and action involving greater 'self-acceptance'; internal vs external locus of control; dissatisfaction with school, family etc.

(c) No cards in "UNDECIDED" category
- need for more career information.

Pre- and post-sorting of cards in terms of counselling or guidance may also indicate short-term changes in consistency of choice, differentiation of interests, stability and congruence of interests with other factors (Holland 1973, p. 51).

Interests imply more differentiation and complexity than mere preferences, and in order to make them more effective factors in the choice process, the counsellor may seek differentiating criteria which establish a hierarchy.

Step 3. Therefore, the client may be asked to rank order the interest categories most preferred in the "LIKE" group. In this way the client is "implicity ranking the importance of the values associated with them" (Dolliver, 1967).

Clients can also be introduced to a work values checklist e.g. Super (1969) as being similar to what they have been thinking about but in a different form. Clients are asked to consider these occupational reinforcers in order of importance to them.

Step 4. The client is then asked for comments or reactions, especially whether any areas of interests were omitted.

Generating alternatives: Since the card sort technique is a process technique used to promote career exploration, the counsellor should help the client to follow-up this process of self-clarification. Some specific steps in generating alternatives would include investigation of occupations through classification of careers arranged in interest categories (e.g. Job Guide) or occupational handbooks (e.g. Background to Careers).

Group Administration

The interest card-sort can contribute to group , as well as individual situations. The use of KICS in group situations would have primarily a non-informational purpose.

The typical format in a group is to

(a) briefly introduce it

(b) ask for a volunteer to silently sort the cards

(c) invite members of the group to discuss the

Group Administration with Lower Ability Groups

Although the interest card-sort was intended primarily for mature and/or above-average ability clients, it has been reported to be valuable in group situations with lower ability groups. Some benefits in group administration, are that it:-

(a) makes these groups more cohesive;

(b) directs attention to careers;

(c) maintains this attention;

(d) makes career investigations a favourable and constructive experience by providing a finite and understandable framework;

(e) provides them with possibly their first experience at career decision-making at a personal level.

Additional Reference:

Holland, J.L. (1973) Making vocational choices: a theory of careers, Englewood Cliffs, N.J.: Prentice-Hall.